

## Patent claims

1. Bracing arrangement with overload protection comprising
  - a first element (1) to be braced,
  - 5 - a second element (2) to be braced which is to be braced against the first element (1) and
  - a bracing bolt(3) for bracing,characterized by
  - a sleeve (4), which is braced against the second element
  - 10 (2) to be braced with the bracing bolt(3) and which goes through the first element (1) to be braced, and
  - a sleeve tensioning device (5), which engages the sleeve (4) and braces the first element (1) to be braced against the
  - 15 second element (2) to be braced,
  - whereby the sleeve (4) is released to a pre-specified extent (4f') by means of the sleeve tensioning device (5) and
  - whereby exceeding the operating force that keep the first and the second elements (1,2) separate from each other beyond
  - 20 a operating force threshold leads to relaxation of the sleeve (4) relative to the bracing by the bracing bolt (3) and to the consequential breaking of the bracing bolt (3).
2. Bracing arrangement according to claim 1, in which the
- 25 bracing bolt (3) is strained up to a pre-specified extent (3f') within its range up to the yielding point.
3. Bracing arrangement according to claim 1 or 2, in which
- 30 the bracing bolt (3) is more elastic than the sleeve (4).
4. Bracing arrangement according to one of the preceding claims, in which the sleeve (4) is more elastic than the first element (1) to be braced.
- 35 5. Bracing arrangement according to one of the preceding claims, in which the bracing bolt (3) is a stud (3) with a

screw thread (3a) for screwing it into the bore with an internal thread (2a) of the second element (2) to be braced.

5 6. Bracing arrangement according to one of the preceding claims, in which the sleeve (4) has an external screw thread (4b) for screwing onto the sleeve tensioning element (5) with an internal thread (5a).

10 7. Method for bracing both the elements to be braced (1,2) by means of a bracing bolt (3), a sleeve (4) and a sleeve tensioning device(5), in particular with a bracing arrangement according to one of the preceding claims, involving the steps:

- 15 - Bracing of the sleeve (4) by means of the bracing bolt (3) against the second element (2) to be braced, whereby the bracing bolt (3) compresses the sleeve (4),
- Bracing of the first element (1) to be braced on the second element (2) to be braced, through bracing by means of the sleeve tensioning device (5), whereby the sleeve tensioning device (5) is braced with engagement with the sleeve (4) 20 projecting through the first element (1) to be braced, in such a manner that the sleeve (4) is relaxed relative to the preceding compression up to a pre-specified extent of release (4f')
- 25 - so that an operating force, which moves the first and the second elements (1,2) to be braced in mutually opposite directions, leads, above a pre-specified threshold value, to a complete release of the sleeve (4) and to the breaking of the bracing bolt (3).

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8. Bracing bolt (3) and sleeve (4) for use in a bracing arrangement according to one of the claims 1 - 5 or in connection with the method according to claim 6, whereby the bracing bolt (3) is made of a more elastic material than the 35 sleeve (4).

9. Bracing bolt (3) and sleeve (4) according to claim 8, whereby a force, which stretches the bracing bolt (3) to a pre-specified extent, compresses the sleeve (4) in the opposite direction to a lesser extent.